



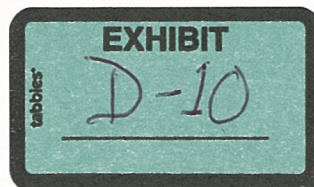
## **Assessment of Economic Damages**

**JOSHUA and BRITTANY TAYLOR, et al.**

**v.**

**CITY of PHILADELPHIA, et al.**

**United States District Court for the Eastern District of Pennsylvania  
Civil Action Number 13-CV-2241**



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**JOSHUA and BRITTANY TAYLOR, et al. v. CITY of PHILADELPHIA, et al.**

**Date of Incident: April 25, 2011**

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FINANCIAL FORENSIC SERVICES

BARACH  
CONSULTING  
GROUP

Certified Public Accountants  
Certified Fraud Examiners  
Certified Valuation Analysts  
Certified in Financial Forensics

May 27, 2016

Matthew Kevin Hubbard, Esquire  
Senior Attorney  
City of Philadelphia Law Department  
1515 Arch Street, 14<sup>th</sup> Floor  
Philadelphia, PA 19102-1595

Dear Mr. Hubbard:

You have requested that we perform a valuation of the economic damages accruing to Joshua and Brittany Taylor and their children Zachary Joseph Taylor and Brianna Lee Taylor, as the result of an incident occurring on April 25, 2011.

Our report was prepared for the specific purpose stated above for use in the matter of the Joshua and Brittany Taylor, et al. v. City of Philadelphia, et al., being litigated in the United States District Court for the Eastern District of Pennsylvania, civil action number 13-CV-2241.

Our report is not to be copied or made available to any persons or parties, other than those having an interest in the subject case, without the express written consent of Barach Consulting Group, LLC.

For the purpose of our valuation, we have defined economic damages as the Present Value of the diminution in earnings and related fringe benefits; and household services, caring and support.

In preparing our report, we have relied upon certain records provided to our office, as delineated by Appendix A. We have assumed that these documents are accurate and complete, and accordingly, we do not express an opinion or any form of assurance on this information. In addition to the aforementioned, our valuation includes certain assumptions and limiting conditions that are integral to the understanding of our opinion of value and are disclosed in detail in the accompanying report.

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Matthew Kevin Hubbard, Esquire  
May 27, 2016  
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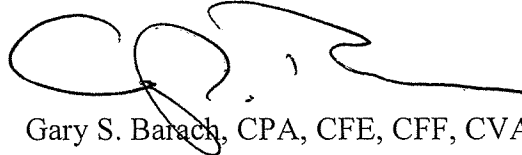
Economic damage calculations and conclusions are the result of professional judgment, experience, and opinion. The accompanying report provides our professional opinion in accordance with recognized industry standards. These standards are established by organizations, governmental agencies, and the courts, and include the American Institute of Certified Public Accountants (AICPA), the Association of Certified Fraud Examiners (ACFE), and the National Association of Certified Valuators and Analysts (NACVA).

Our engagement was not contingent upon developing or reporting predetermined results. Similarly, our compensation for completing this assignment was not contingent upon the development or reporting of a predetermined conclusion or direction in value that favors the cause of either party in this litigation.

Our procedures and conclusions are presented within a reasonable degree of accounting and economic certainty, and are in accordance with case law.

Sincerely,

**BARACH CONSULTING GROUP, LLC**



Gary S. Barach, CPA, CFE, CFF, CVA

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**ECONOMIC EXPERT CERTIFICATION**

I certify to the best of my knowledge and belief:

1. The statements of fact contained in this report are true and correct.
2. The analyses, opinions, and conclusions contained in this report are limited only by the reported assumptions and limiting conditions therein, and are my personal, impartial, and unbiased professional analyses, opinions, and conclusions.
3. I have no bias with respect to the individual that is the subject of this report or to the parties involved with this assignment.
4. My engagement in this assignment was not contingent upon developing or reporting predetermined results.
5. My compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of either party in this litigation, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of my report.
6. All reasonable efforts were made to obtain those documents and records necessary to establish an accurate value of economic damages consistent with the standards of my profession, my professional judgment and experience, and documents that would be required by my professional peers were they to perform this valuation.
7. My analysis has not purposely omitted from consideration documents or records that, if considered, would adversely affect either party in this matter and the determination of accurate economic damages.
8. The economic analyses, opinions, and conclusions were developed, and this report is in conformity with the professional standards established by the American Institute of Certified Public Accountants (AICPA), the Association of Certified Fraud Examiners (ACFE), and the National Association of Certified Valuators and Analysts (NACVA) relating to litigation services and is further consistent with industry practices and conventions used to establish economic damages in matters such as this specific assignment.

**BARACH CONSULTING GROUP, LLC**

  
\_\_\_\_\_  
Gary S. Barach, CPA, CFE, CFF, CVA

5-27-2016  
Date

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**VALUE CONCLUSION:**

In the opinion of the undersigned, based on the documents provided and the procedures performed, subject to the assumptions and limiting conditions incorporated herein, the economic damages accruing to Joshua and Brittany Taylor and their minor children as the result of April 25, 2011 incident, expressed within a reasonable degree of economic and accounting certainty as of this reporting date of May 27, 2016 amount to:

**FIVE THOUSAND NINE HUNDRED NINE DOLLARS  
(\$5,909)**

**AND**

**THREE THOUSAND ONE HUNDRED EIGHTEEN DOLLARS  
(\$3,118)**

**(If it is accepted that future surgery will be required with one month of recovery)**

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**Date of Incident: April 25, 2011**

## **BACKGROUND**

The subject litigation arises from an incident that occurred on April 25, 2011 that resulted in Joshua Taylor suffering a gunshot wound. Mr. Taylor was charged with multiple counts of criminal activity relating to the April 25, 2011 incident and eventually arrested on September 20, 2011. On December 9, 2014, he was found guilty of “Carrying Firearms Public in Philadelphia” and “Recklessly Endangering Another Person.”

Joshua Taylor was born on October 31, 1987. He was 23.48 years of age at the time of the incident with a life expectancy of 54.60 additional years to age 78.08.<sup>1</sup>

Joshua and Brittany Taylor reside at 4624 Worth Street, Philadelphia, Pennsylvania with their two children; Brianna Lee Taylor (reportedly 6 years of age) and Zachery Joseph Taylor (reportedly 8 years of age).

Mr. Taylor’s education has not been disclosed in the records presented. Employment records provided indicate that at the time of the incident, Joshua Taylor was employed by EDA Contractors, Inc (“EDA”). No job title is denoted in the records; however, Mr. Taylor was reportedly a roofing mechanic. Our research of the company indicates that it is located at 600 Center Avenue, Bensalem, Pennsylvania. EDA specializes in installing wall panels, roofing, waterproofing, air and vapor barriers, and roof systems on commercial buildings in Pennsylvania, New Jersey and Delaware.

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<sup>1</sup> “United States Life Tables, 2011”, National Vital Statistics Reports, Vol. 64, Number 11, September 22, 2015.



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## ASSESSMENT OF ECONOMIC DAMAGES

### Premise of Valuation

We determined economic damages based on the Present Value of earning capacity (net of income taxes); fringe benefits; and household services, caring, and support. Past damages have been defined as occurring from the date of the incident through the date of this report, May 27, 2016. Future damages have been defined as occurring after May 27, 2016.

### Duration of Economic Damages

In determining economic damages, we established the following periods for the various components of economic damages:

- Earnings Losses. We considered the period of damages relative to lost earnings to extend from the date of the incident through normal retirement age (NRA), as defined by the Social Security Administration (see discussion under “Worklife”).
- Medical Fringe Benefits. We considered the period of damages relative to medical fringe benefits to extend from the date of the incident through the earlier date that costs will be incurred to continue or replace medical benefits that were funded by Mr. Taylor’s employer (see discussion under “Fringe Benefits”).
- Retirement Benefits. We considered the period of damages relative to retirement fringe benefits to extend from the date of the incident through Mr. Taylor’s life expectancy (see discussion under “Fringe Benefits”).



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- Household Services, Caring, and Support. We considered the period of damages for household services, caring, and support to extend from the date of the incident through the earlier date that costs are incurred to replace services provided by Mr. Taylor (see discussion under “Household Services, Caring, and Support”).

### **Forecast Earnings**

To forecast earnings, we evaluated Mr. Taylor’s earning capacity throughout his worklife.

### Worklife

To establish worklife, analyses may be performed to establish an individual’s actual absenteeism history and characteristics relating to absenteeism unique to a chosen vocation. In addition, adjustments for “normal” absenteeism from the workforce are commonly developed by applying worklife statistics. To establish Mr. Taylor’s worklife, we referenced the sources described below.

The study “Worklife Estimates: Effects of Race and Education” provides statistical tables of a condensed historical picture of worklife experiences of individuals beginning at age 16 through age 75.<sup>2</sup> The tables outline the number of years individuals can be expected to work based upon their age, gender, and education. The Bureau of Labor Statistics (BLS) developed these worklife statistics by incorporating mortality and labor force participation rate factors into an age-specific

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<sup>2</sup> “Worklife Estimates: Effects of Race and Education”, February 1986, published by the U.S. Department of Labor, Bureau of Labor Statistics (BLS).

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worklife expectancy model. Mortality rates were derived from the National Center for Health Statistics "United States Life Tables". The BLS's labor force participation rates were established based upon statistical information regarding workers' decisions to participate or not participate in the labor force. Those workers identified as labor force participants were categorized as "employed" or "unemployed seeking work". Those classified as not participating in the labor force were workers who were medically unable, discouraged, or voluntarily chose not to enter or return to the labor force.

In 2000, the Journal of Legal Economics published a revised study that adjusted the BLS estimates by using labor force activity based on data taken from the Current Population Surveys (CPS) conducted in 1997 and 1998.<sup>3</sup> This study was then adjusted in 2001 to reflect more specific statistics of worklife responsive to gender and levels of education.<sup>4</sup>

In August 2011, the Journal of Forensic Economics published worklife statistics based on application of the "Markov model" to data compiled from 2005 to 2009.<sup>5</sup>

Based on the most recent worklife statistics, Mr. Taylor's remaining, condensed worklife as of the date of the incident was 34.82 years.

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<sup>3</sup> "A Markov Process Model of Work-Life Expectancies by Educational Attainment Based on Labor Force Activity in 1997-8", Journal of Legal Economics, Vol. 10, Number 3, Winter 2000-01.

<sup>4</sup> "The Markov (Increment-Decrement) Model of Labor Force Activity: New Results Beyond Work-Life Expectancies", Journal of Legal Economics, Vol. 11, Number 1, Summer/Spring 2001; "The Markov Process Model of Work-Life Expectancies Labor Force Activity: Extended Tables of Central Tendency, Variation, and Probability Intervals", Journal of Legal Economics, Vol. 11, Number 1, Summer/Spring 2001.

<sup>5</sup> "The Markov Process Model of Labor Force Activity: Extended Tables of Central Tendency, Shape, Percentile Points, and Bootstrap Standard Errors", Journal of Forensic Economics, Vol. 22, Issue 2, August 2011.

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To determine a factor for “normal absenteeism,” we correlated the above worklife statistic with a Normal Retirement Age (NRA) of 67 as defined by the Social Security Administration (for individuals born in 1960 or later) by applying the following formula:

$$\frac{\text{Years to Age 67 minus Worklife Years}}{\text{Years to Age 67}}$$

Applying the above formula resulted in a factor for normal absenteeism of 20.00 percent. We did not apply the aforementioned factor given the limited time that the incident caused labor force outage. We instead incorporated actual absences as reflected in employment records.

#### Earnings during Worklife

It is customary and proper for experts to establish earnings by evaluating historical wage documents such as tax returns and Wage and Tax Statements (Form W-2). Further research consists of interviewing past employers, analyzing rates of pay and hours worked, and correlating such specifics with industry statistics to develop a valid forecast model.

In this subject case, we were provided no tax returns. We therefore relied on metrics that included hours worked and wages paid as disclosed in employment records provided by EDA. The following chart summarizes Mr. Taylor’s hours and wages for 17 pay periods in 2011 prior to the date of the subject incident:

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Check Date	Reg Hours	OT Hours	Gross Wages
7-Jan	16	0	\$ 359.20
14-Jan	15	0	345.75
21-Jan	0	0	-
28-Jan	8	0	179.60
4-Feb	0	0	-
11-Feb	0	0	-
18-Feb	16	0	359.20
25-Feb	18	0	410.10
4-Mar	9	2	273.40
11-Mar	24	2	603.15
18-Mar	33	2	812.20
25-Mar	24	3	635.33
1-Apr	16	0	359.20
8-Apr	8	0	179.60
15-Apr	0	0	-
22-Apr	0	0	-
29-Apr	20.5	0	463.73
	207.5	9	\$ 4,980.46
Total pay periods			17.00
Pay periods worked			12.00
Pay periods not worked			5.00
Percentage not worked			0.294117647
Average regular hours per pay period when working			17.29
Average overtime hours per pay period when working			0.75

Applying the above metrics, we forecast \$5,909.23 of wages from April 25, 2011 to September 20, 2011, the date of Mr. Taylor's arrest, as illustrated by the following chart:

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	<b>Regular</b>	<b>Overtime</b>	<b>Total</b>
Total pay periods Apr 25 to Sept 20			21.2
Percentage of pay periods not worked			0.29
Idle pay periods			6.24
Pay periods worked	14.96	14.96	14.96
Hours worked per active pay period	17.29	0.75	
Total hours	258.66	11.22	
Hourly rate	\$ 21.45	\$ 32.18	
<b>Total wages Apr 25 to Sept 20</b>	<b>\$ 5,548.22</b>	<b>\$ 361.00</b>	<b>\$ 5,909.23</b>

We reduced the above wages for work-related expenses estimated as 5.00 percent of gross wages based on our experience determining economic damages for similar occupations. We also decreased wages for income taxes based on 2011 tax regulations. Based on 2011 annual wages but for the incident, Mr. Taylor's effective tax rate would have been 7.00 percent. Wage losses amount to \$5,200 (\$5,909 less \$295 of work-related expenses less \$414 of income taxes).

In addition to the above loss of wages, we considered the possibility of future absences related to the April 25, 2011 incident as suggested by Mohammad I. Kahn, MD. Dr. Khan opined that Mr. Taylor has developed a ventral incisional hernia that will require future surgery. To provide a basis for lost wages were future surgery required, we analyzed employment metrics for pay periods from January 3, 2014 through August 21, 2015 (payroll check dates) as follows:

Total pay periods	85.00
Pay periods worked	73.00
Pay periods not worked	12.00
Percentage not worked	0.141176471
Average regular hours per pay period when working	27.84
Average overtime hours per pay period when working	2.82

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The following chart illustrates our calculation of an additional \$3,117.53 were Mr. Taylor to be absent from work for four pay periods due to future surgery. Income taxes have been calculated at an effective rate of 11.10 percent based on annual wages of \$48,192, applying a “standard deduction,” and allowing four personal exemptions. It should be noted that in the absence of being provided tax returns for review and analysis, we erred to the benefit of Mr. Taylor by assuming that his wife generated no taxable income which resulted in a lower effective tax rate.

	<b>Regular</b>	<b>Overtime</b>	<b>Total</b>
Total pay periods in month			4
Percentage of pay periods not worked			0.14
Idle pay periods			0.56
Pay periods worked			3.44
Hours worked per active pay period	27.84	2.84	
Total hours	95.77	9.77	
Hourly rate	\$ 33.65	\$ 50.48	
Total monthly wages	\$ 3,222.65	\$ 493.12	\$ 3,715.77
Work-related expenses			\$ 185.79
Income taxes (@ 11.10%)			\$ 412.45
<b>Monthly wages, net of work-related expenses and taxes</b>			<b>\$ 3,117.53</b>

### **Fringe Benefits**

Fringe benefits in wrongful death litigation generally consist of medical and retirement benefits. Each of these components is discussed below.

#### Medical Benefits

Medical benefits in personal injury cases pertain to additional costs incurred as a result of the incident to replace or continue health coverage.

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In the subject case, no testimony or records evidence that Mr. Taylor incurred additional cost to continue or replace medical benefits. Based on this circumstance, we have included no loss of medical fringe benefits in our economic damages.

#### Retirement Benefits

Retirement benefits allowable in personal injury litigation are based on the diminution in the Present Value of proceeds that would have been distributed to the plaintiff upon retirement.

No records have been provided evidencing that Mr. Taylor was participating in an employer-funded retirement plan at the time of the incident. Given this fact and the brevity of his work outage, we have included no loss of retirement benefits in our economic damages.

#### **Household Services, Caring, and Support**

The loss of household services, caring, and support addresses losses to spouses and children due to an individual's inability to perform physical activities. Procedures to establish a value for the loss include obtaining evidential support of expenditures made to replace those services that would have been performed but for the incident.

As of April 25, 2011, Mr. Taylor's household consisted of his wife, two minor children and him. No documents have been presented indicating that additional expenses were incurred to replace household services during Mr. Taylor's recovery from injuries. In addition, as of January 2012, Mr. Taylor was physically recovered from his injuries as evidenced by his return to work in his pre-incident capacity. Based on the aforementioned facts and circumstances, we have included no loss of household services, caring, and support in our economic damages.



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### **ASSUMPTIONS AND LIMITATIONS**

In addition to the assumptions and limitations discussed in this report, it must be noted that our economic damages do not include the actual cost of medical treatment incurred by the plaintiff or pain and suffering.

### **SUMMARY AND CONCLUSIONS**

Based on the documents presented and the procedures enumerated in this report, subject to the assumptions and limitations expressed herein, we have concluded with a reasonable degree of economic certainty that the economic damages accruing to Joshua and Brittany Taylor and their two children as a result of the April 25, 2011 incident total \$5,909. Should future surgery related to the incident be required, an additional \$3,118 of damages will be incurred assuming four weeks of work outage.

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**Documents Examined and Research References**

**Appendix A**

**Case Documents**

- Complaint dated April 25, 2013.
- Defendants “Answer with Affirmative Defenses dated May 24, 2013.
- Memorandum dated November 28, 2011 from Commanding Officer, Internal Affairs Division to Police Commissioner.
- 
- Case information relative to Commonwealth of Pennsylvania v. Joshua Taylor, criminal docket number CP-51-CR-0011565-2011.
- EDA “Employee QuickReport” for Joshua Taylor from June 27, 2008 through December 31, 2010.
- EDA “Ledger Card Report” for Joshua Taylor check dated January 7, 2011 through August 21, 2015.
- Report of Mohammad I. Khan, MD (undated).
- Report of Royal A. Bunin dated April 26, 2016.

**References**

- “United States Life Tables, 2011”, National Vital Statistics Reports, Vol. 64, Number 11, September 22, 2015.
- “Worklife Estimates: Effects of Race and Education”, February 1986, published by the U.S. Department of Labor, Bureau of Labor Statistics (BLS).
- “A Markov Process Model of Work-Life Expectancies by Educational Attainment Based on Labor Force Activity in 1997-8”, Journal of Legal Economics, Vol. 10, Number 3, Winter 2000-01.
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**Documents Examined and Research References**

**Appendix A**

- “The Markov Process Model of Work-Life Expectancies Labor Force Activity: Extended Tables of Central Tendency, Variation, and Probability Intervals”, Journal of Legal Economics, Vol. 11, Number 1, Summer/Spring 2001.
- “The Markov Process Model of Labor Force Activity: Extended Tables of Central Tendency, Shape, Percentile Points, and Bootstrap Standard Errors”, Journal of Forensic Economics, Vol. 22, Issue 2, August 2011.
- <http://www.fmsbonds.com>.